

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

PATENT SPECIFICATION

(11)

1 549 448

B3

1 549 448

(21) Application No. 53644/76 (22) Filed 22 Dec. 1976 (19)
 (31) Convention Application No. 7 607 644U
 (32) Filed 12 March 1976 in
 (33) Fed. Rep. of Germany (DE)
 (44) Complete Specification published 1 Aug. 1979
 (51) INT. CL. B65D 89/08
 (52) Index at acceptance

B8K 2G6 2K4 2K6 2L H



(54) TRANSPORTATION CONTAINER

(71) I, WALTER KRAUSE, a citizen of the Federal Republic of Germany, of D-7121 Walheim, Württemberg, Federal Republic of Germany, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 This invention relates to a transportation container made of flexible material having a receptacle and carrying straps.

It is known to equip a transportation container made from flexible material with loop-like carrying straps fastened to two opposite sides of a cover of the receptacle in such a way that their lower edges are fixed by a number of seams, extending parallel to the relevant edge of the cover, to side walling of the receptacle, and that the two side edges of the strap leading upwards and bounding the aperture of the loop formed by the strap are additionally fastened to the side walling by several rivets which are arranged respectively one above the other along the relevant side edge. In this respect, the previously customary straps were designed so that the side edges bounding the opening extended perpendicular to the side edge of the cover, the width of each strap being the same throughout and generally corresponding to the length of that side edge of the cover to which the strap was fastened.

35 However, it has become apparent that this mode of fastening has an unfavourable effect, upon severe loading, on the durability of the connection between strap and transportation container, in that the uppermost rivet, provided at the side edge of the strap, as a result of the oblique pull acting on it has a tendency to tear out, whereby the carrying capacity of the strap is reduced.

An object of the present invention is to provide a transportation container of flexible material and having carrying straps wherein tearing out of the carrying strap edges is avoided or the possibility thereof is reduced.

The invention provides a transportation container comprising a receptacle of flexible

material and two carrying straps, each carrying strap being in the form of a web of flexible material hemmed along two opposite side edges thereof, the other edges of the web having been brought together and each pair of such other edges of each strap being sewn to an upper edge portion of side walling of the receptacle, a terminal portion of each hem of each strap being sewn to the receptacle by first spaced-apart seams extending lengthwise of the hem and second seams crossing between the first seams, the upper end of each of the second seams terminating in a locking formation formed of several overlying short seams extending generally parallel to each other.

Advantageously the seams forming the locking formation extend at an acute angle to the relevant side edge of the carry strap in such a way that their upper ends are further away from the outer edge of the carrying strap than their lower ends. The seams forming the locking formation can have, for example, a length of about 2 to 3.5 cm.

Preferably the carrying straps have obliquely-extending edges, so that the lower edge fastened to the container is longer than the upper part forming the loop. In this respect it has proved to be advantageous, circumstances permitting, to make the lower edge of the carrying strap shorter, by a specific amount, than a side of the receptacle to which it may be fastened.

Through this mode of fastening of the carrying straps to the transportation container, tearing-out of the carrying straps at the two edges is reliably avoided and the useful life of the transportation container is considerably increased.

The invention will be described further, by way of example, with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a preferred transportation container of the invention;

Fig. 2 is an enlarged fragmentary side elevation showing a carrying strap; and

Fig. 3 is a further enlarged detail from Fig. 2 which shows the fastening of a hem

50

55

60

65

70

75

80

85

90

95

2 of the carrying strap to walling of the container.

In the drawings, a preferred transportation container has side walling 1. Arranged along two opposite side edges of a rectangular cover part are two carrying straps 2, edges 3 of which, in the example selected, are bevelled in such a way that the upper part 4 intended for support on a carrying element is shorter than the lower edge 5. The carrying strap 2 is sewn together into a loop, by the seam 6 extending parallel to its lower edge 5, in such a way that the lower edge 5 is formed by the two terminal edges of the flexible material forming the carrying strap. Along the two obliquely-extending edges 3, extending upwardly and bounding the loop of the carrying strap, the material forming the strap is turned over into a hem 11 which is secured by a seam 12. The strap 2 is fastened to the side walling of the transportation container by a row of seams 7 which are arranged parallel to its lower edge 5 and which extend at both ends respectively only as far as the hem 11.

Each of the two hems 11 is for its part fastened by means of seams 8, 10 and 12 to the transportation container, the seams 10 and 12 extending parallel to the side edge 3 of the strap, while the seams 8a and 8b cross over each other. The seams form, in this way, a trapezium, the diagonals of which are formed by the seams 8a and 8b.

The ends of the seams 8a and 8b and 35 10 are reinforced by locking stitches respectively arranged in several seams 9a and 9b extending generally parallel to one another. The seams formed by these locking stitches extend at an acute angle to the side edge 3 40 of the carrying strap, in such a way that the upper end of each is further removed from the side edge 3 than its lower end.

The uppermost of the carrying or fastening seams 7 is disposed a small distance beneath the seam 6 holding the strap together 45 into a loop, while the overall fastening is so selected that between the seam 6 and the side edge 1¹ of the cover part a specific distance is observed which, in the example selected, is to make it possible to mount between the carrying strap and the side edge 1¹ of the cover part additionally, for example a protective flap.

In the example selected, the length of the 55 lower edge 5 is smaller than the length of the side edge 1¹ of the cover part. It has become apparent that such a dimensioning considerably reduces the stressing of the fastening of the carrying straps, more especially at the end points, which are particularly highly endangered, of the fastening (at 9a and 9b).

Designated by 1a is the projecting length arising as a result of the bevelling of the edge 3 of the strap and possibly the lesser length of the lower edge 5 (compared with the side edge 1¹ of the cover part), of the side edge 1¹ of the cover part, while the reference number 13 designates stiffening elements which are provided on the part 4 of the carrying strap intended for support on the carrying element and keep these spread, in order to facilitate insertion of the carrying elements.

65

70

75

80

85

90

95

100

105

110

115

WHAT I CLAIM IS:—

1. A transportation container comprising a receptacle of flexible material and two carrying straps, each carrying strap being in the form of a web of flexible material hemmed along two opposite side edges thereof, the other edges of the web having been brought together and each pair of such other edges of each strap being sewn to an upper edge portion of side walling of the receptacle, a terminal portion of each hem of each strap being sewn to the receptacle by first spaced-apart seams extending lengthwise of the hem and second seams crossing between the first seams, the upper end of each of the second seams terminating in a locking formation formed of several overlying short seams extending generally parallel to each other.

2. A transportation container as claimed in Claim 1, wherein the short seams forming each locking formation extend at an acute angle to the relevant side edge of the carrying strap in such a way that their upper ends are further away from the outer edge of the carrying strap than their lower ends.

3. A transportation container as claimed in Claim 1, wherein the carrying straps each have obliquely-extending edges, in such a way that the lower edge fastened to the container is longer than the upper part which forms a loop.

4. A transportation container as claimed in Claim 3, wherein the lower edge of each carrying strap is shorter than the side edge of a rectangular cover part of the receptacle.

5. A transportation container substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

For the Applicant,
BARLOW, GILLETT & PERCIVAL,
Chartered Patent Agents,
94, Market Street,
Manchester, 1,
and
20, Tooks Court,
Cursitor Street,
London, E.C.4.

